



# Placer Development Limited

## Directors

James C. Dudley, New York, U.S.A.,  
*Private Financial Consultant.*

<sup>1,2</sup> Ross G. Duthie, Vancouver, Canada,  
*President and Chief Executive Officer.*

E. Jack Eldridge, Sydney, Australia,  
*Chairman, Placer Exploration Limited.*

Albert E. Gazzard, Sydney, Australia  
*Director.*

William James, Toronto, Canada,  
*Executive Vice-President,*  
*Noranda Mines Limited.*

<sup>1</sup> Thomas H. McClelland, Vancouver, Canada,  
*Chairman of the Board.*

<sup>1</sup> Alfred Powis, Toronto, Canada,  
*Chairman, President and Chief Executive Officer,*  
*Noranda Mines Limited.*

<sup>2</sup> J. Ernest Richardson, Vancouver, Canada,  
*Chairman, <sup>4</sup>MacMillan Bloedel Limited.*

<sup>2</sup> P. Ritchie Sandwell, Vancouver, Canada,  
*Chairman of the Board.*

<sup>3</sup> Sandwell & Company Limited.

Vernon F. Taylor, Jr., Denver, U.S.A.,  
*President, Westhoma Oil Company.*

<sup>1,2</sup> H. Richard Whittall, Vancouver, Canada,  
*Deputy Managing Partner,*  
*Richardson Securities of Canada.*

<sup>1</sup> Member of the Executive Committee

<sup>2</sup> Member of the Audit Committee

<sup>3</sup> Consulting Engineers

<sup>4</sup> Forest Products Company

## Director Emeritus

John D. Simpson, Vancouver, Canada

## The Company

Placer is a Canadian company, incorporated in the Province of British Columbia, whose business is primarily exploration, development and production of hard minerals, petroleum and natural gas. Canadians hold 78.6% of the issued shares, 12% are held in Australasia and 9.4% are held in the United States and other countries.

## Officers

Thomas H. McClelland, *Chairman of the Board*

Ross G. Duthie, *President and*  
*Chief Executive Officer*

James L. McPherson, *Senior Vice-President*

Lawrence Adie, *Vice-President, Exploration*

John A. Butterfield, *Vice-President, Marketing*

James H. Eastman, *Vice-President,*  
*Project Developments*

Lory C. Fairfield II, *Vice-President,*  
*Personnel and Industrial Relations*

John M. McConville, *Vice-President,*  
*Administration and General Counsel*

Robert Needham, *Vice-President,*  
*Australasian Operations*

Anthony J. Petrina, *Vice-President,*  
*Operations*

Donald Hallam, *Secretary*

John Racich, *Treasurer*

Howard F. Gougeon, *Comptroller*

David Michaelis, *Sydney Secretary*

## Annual General Meeting

The Annual General Meeting of Shareholders of the Company will be held on Tuesday, May 1, 1979 at 12:00 Noon in the Vancouver Island Room at the Hotel Vancouver, Vancouver, British Columbia, Canada.

## Valuation Day Price

On December 22, 1971, established as valuation day by the Canadian Department of National Revenue, the price of the Company's Common Shares was \$12.75 per share (adjusted from \$25.50 following the share split in 1973).

## Cover

The Endako mine in central British Columbia produces molybdenum disulphide which, after further processing, is converted to a trioxide form for use in the steel-making process. This mine is Canada's principal supplier of molybdenum in trioxide form.



# Comparative Highlights

	1978	1977
<b>Operating Summary</b>		
Revenues .....	\$179,133,000	\$184,791,000
Equity in after-tax earnings of associated companies .....	14,191,000	6,240,000
Earnings before extraordinary items .....	26,209,000	21,509,000
Net earnings .....	20,184,000	21,509,000
Exploration expense .....	12,106,000	9,916,000
<b>Financial Status</b>		
Working capital .....	\$ 60,987,000	\$ 69,834,000
Property, plant and equipment additions .....	32,819,000	22,248,000
Shareholders' equity .....	231,901,000	222,291,000
Total assets .....	377,346,000	333,369,000
<b>Per Common Share</b>		
Earnings before extraordinary items .....	\$ 2.17	\$ 1.78
Net earnings .....	\$ 1.67	\$ 1.78
Dividends paid .....	\$ 0.90	\$ 0.80
Book value .....	\$19.16	\$18.39
<b>Statistical Data</b>		
Common shares outstanding — net .....	12,104,808	12,086,342
Number of employees .....	2,389	2,640
Number of shareholders .....	5,088	5,196

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### Metrication

The mining industry will convert to the International System of Metric Units or "S.I." by 1980. The figures in this report are in metric units and a conversion table has been included below for reference.

Metric unit	Symbol	Imperial unit	Other unit
tonne	t	2,204.6 pounds	
kilogram	kg	2.2046 pounds	.029 flasks
gram	g	0.0353 ounces	
cubic metre	m <sup>3</sup>	35.4937 cubic ft.	6.2929 barrels
kilometre	km	0.6214 miles	
hectare	ha	2.471 acres	



## Directors' Report to the Shareholders

The Board of Directors is pleased to present the 53rd Annual Report.

### Financial

Consolidated net earnings for the year ended December 31, 1978 were \$20,184,000 or \$1.67 per share after allowing for two extraordinary items which reduced earnings by \$6,025,000 from \$26,209,000 or \$2.17 per share. In 1977 there were no extraordinary items and consolidated net earnings were \$21,509,000 or \$1.78 per share.

Earnings increased before extraordinary items mainly as a result of improvements in the earnings of Marcopper and Mattagami due to higher sales volumes and metal prices. The decline of the Canadian dollar relative to the United States dollar accounted for approximately \$3,500,000 of the increase. Gibraltar had a disappointing year, suffering a loss. A labour dispute halted its production from May 26 to February 6, 1979.

Molybdenum experienced strong demand in 1978 and Endako made a most significant contribution to Placer's earnings as a result. The improvement in this area was, however, partially offset by lower molybdenum production and higher income taxes due to higher Endako pre-tax earnings and declining depletion allowances. Endako's collective agreement expired on December 31. On February 15, 1979, strike action was initiated by the Canadian Association of Industrial, Mechanical and Allied Workers, affecting 500 employees.

The extraordinary items resulted from the reduced valuation of the United States coal properties and Australian grazing properties. The coal reserves in Kentucky which were acquired in February, 1978 have been written-down by \$4,095,000. Results from a drilling programme, investigation of leases and a study of the impact of guidelines for the regulation of strip mining issued by the United States Department of the Interior in July, 1978 have substantially reduced the estimated economically recoverable coal reserves. To overcome this setback additional economic reserves will be acquired. A buyer is being sought for the Company's pastoral interests in Australia comprising a 50% interest in Northern Cattle Company Pty. Limited. This company has reported that a potential sale of its northern grazing properties indicates a reduction in value, of which Placer's share is \$1,930,000. The remaining properties, situated near Perth, are in an area where land values have generally appreciated. Placer's decision to dispose of its interest follows several years of unsatisfactory return on its investment.

Noranda Mines Limited has offered to exchange 1 Noranda share for each 2¼ shares of Mattagami Lake Mines Limited. Under the offer, Placer will receive a 5.4% share interest in Noranda in exchange for its 27.1% share interest in Mattagami. On the basis of the \$42½ per share price on the date of the offer the transaction will result in a gain for Placer of approximately \$34,000,000 in 1979 and an interest in a highly diversified company.

The Company's share ownership of Mattagami was sufficient to enable it to include in its earnings its equity in Mattagami's earnings rather than the amount of dividends received. This will not be the case when the Company acquires an interest in Noranda, as it may then record in its earnings only the amount of Noranda dividends received. For this reason, if the transaction had occurred on January 1, 1978 it is calculated that, based on Noranda dividends in 1978 of \$1.30 per share, the Company's 1978 earnings would have been reduced by \$3,477,000. On the other hand, its cash flow would have increased by \$1,357,000 as Mattagami paid dividends of only 20¢ per share.

Placer's quarterly dividends were increased from 20¢ to 25¢ per share commencing with the third quarter dividend. The dividend for 1978 totalled \$10,893,000 or 90¢ per share. In setting the dividend rate, your Directors have followed the objective of providing a return to shareholders while retaining from earnings sufficient funds to maintain existing plant capacity and to support corporate growth through exploration and acquisition. Working capital available for these purposes at year-end was \$60,987,000 (1977 — \$69,834,000).

The Company had bank loans outstanding at year-end of \$57,944,000 (1977 — \$39,464,000). The funds borrowed in 1978 were used for the purchase of United States coal companies, oil and gas land acquisitions and working capital for Australian operations. Unused lines of credit available with banks amounted to \$66,800,000 at year-end.

Placer and its Canadian subsidiaries have complied with the provisions of the Anti-Inflation Act although in 1977 and 1978 the premium on the U.S. dollar gave rise to excess revenue, as defined by the Act. The Anti-Inflation Board has accepted the Company's compliance plan to eliminate the excess revenue. Most elements of the plan have already been carried out and the Company expects to complete the balance within the prescribed time.

In measures designed specifically for the resource industry, the federal government in its budget of November 16, 1978 proposed to increase the rate of write-off of development expense to 100% and allow one third of the cost of social assets to be included in earned depletion. These proposals, in some instances, may provide a slight benefit to proposed mines but unfortunately are of no benefit to presently operating mines. Other significant proposals in the budget, which affect all industry, include the improvement of the investment tax credit from 5% to 7%. The restrictions placed on the use of income debentures and term preferred shares will result in discontinuance of a useful and economical method of financing new investment through financial institutions.

Overall, the resource industry is encouraged that some improvement has been made and sees this as an indication that the federal government recognizes a need for new incentives which will stimulate substantial investment



in new mines, thereby creating job opportunities.

### **Equity Silver Mines Limited**

A decision has been made to place the Sam Goosly silver property near Houston, British Columbia into production. Placer has acquired, for \$7,400,000, a 70% interest in Equity Silver Mines Limited, which owns the property. The plant will have a design capacity of 4,500 metric tonnes per day. Construction will commence in April, 1979 with start-up expected in mid-1980. The cost of placing the property into production will be approximately \$85,000,000 which initially will be provided by Placer from its own resources and by drawing on its existing lines of credit.

### **Marketing**

The molybdenum market continued to strengthen through 1978 as increasing demand caused shortages that reached severe proportions. Producers responded by increasing published prices. Copper stocks continued to decline and a recovery from the severely depressed prices of recent years is underway.

The early months of 1979 have seen increasing demand for many metals. Although significant economic growth in major industrialized countries is not expected to take place in 1979, favourable markets for molybdenum and copper should continue.

### **Operations**

A labour dispute at Gibraltar halted production after only 21 weeks of operations in 1978. The mine remained closed until February 6, 1979, when the strike was settled.



Senior officers of the Placer group of companies are shown against Vancouver's skyline. Left to right are: Paul C. Evans, President, Placer CEGO Petroleum Limited; Alan G. Horton, President, Placer Amex Inc.; Lory C. Fairfield, Vice-President, Personnel and Industrial Relations; Lawrence Adie, Vice-President, Exploration; John A. Butterfield, Vice-President, Marketing; Thomas H. McClelland, Chairman of the Board; Ross G. Duthie, President and Chief Executive Officer; James L. McPherson, Senior Vice-President; James H. Eastman, Vice-President, Project Developments; John M. McConville, Vice-President, Administration and General Counsel; Anthony J. Petrina, Vice-President, Operations. Not shown: Robert Needham, Vice-President, Australasian Operations.



Craigmont, which is nearing exhaustion of its ore reserves, anticipated last year that operations would cease during the first quarter of 1979. Improvements in the copper market and a high level of operating efficiency achieved by mine personnel enabled Craigmont to increase its earnings in 1978 and has permitted management to extend operations. The current estimate is for underground mining to continue into the fourth quarter of 1979, with copper concentrate production extending into the first quarter of 1980.

At Endako, because of the strong market for molybdenum trioxide, plans are underway to increase roasting capacity to 10,800,000 kilograms per year from 7,700,000. The new roaster, to be completed in the second quarter of 1980 at an estimated cost of \$4,000,000, will process molybdenum disulphide from other mines on a purchase or toll basis, to improve the Canadian supply situation. Construction has commenced on a \$2,200,000 facility to produce high purity, lubricant-grade molybdenum disulphide for sale to lubricant manufacturers in Canada, the United States, Asia, and Australia. Production will commence by June, 1979. Initial revenues from the lubricant-grade molybdenum concentrate will not be significant compared to other molybdenum sales, but will provide further processing within Canada and product diversification.

Placer CEGO Petroleum Limited, the Company's oil and gas subsidiary, participated in a record number of 99 wells commenced in 1978 in western Canada. Of this total, 8 wells were still drilling at year-end. Production of oil and natural gas liquids reached a new high of 1,021,000 barrels in 1978, primarily as a result of continued development in the Eagle field in northeastern British Columbia.

### Exploration

As it has in past years, Placer carried out exploration projects in different parts of the world for a wide variety of minerals. Energy related minerals were of special interest to the Company together with those, such as copper and molybdenum, which are basic to industrial activity. A total of \$12,106,000 (1977 — \$9,916,000) was expended on exploration in 1978 and was distributed as follows: Canada 39%, United States 36%, Australasia 18%, and other countries 7%. Additionally, a total of \$11,008,000 was expended, primarily in western Canada, for oil and gas lease acquisition and exploration drilling.

### Officers and Directors

Mr. A. E. Gazzard, who has served as a Director since 1960, has advised that he will not be standing for reelection at the Annual General Meeting. Mr. Gazzard joined the Company in Australia in 1937 and served in several senior positions including that of Managing Director and Vice-President of Operations in Australia. In 1968 he was appointed Executive Vice-President and was subse-

quently Senior Vice-President until his retirement in 1971. The Board wishes to acknowledge his valuable contribution to the Company over this long period. No successor is presently being recommended by the Board and accordingly, it is proposed that the number of Directors be reduced to ten.

Robert Needham, formerly General Manager of Placer Exploration Limited, was appointed Vice-President, Australasian Operations for Placer and Managing Director of Placer Exploration. He succeeds E. Jack Eldridge who has become Chairman of the Board of Placer Exploration.

Lory C. Fairfield, formerly Director, Personnel and Industrial Relations, was appointed Vice-President, Personnel and Industrial Relations effective March 1, 1979.

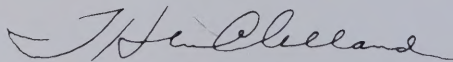
### Personnel

Placer and its subsidiary and associated companies employed a total of 2,389 persons (1977 — 2,640) on December 31. From this total, 804 persons were directly employed by Placer at an annual wage and benefits cost of \$16,441,000.

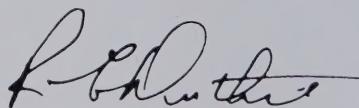
### Outlook

The rapid recovery in metal markets which became evident in late 1978 and early 1979 should have a positive effect on 1979 earnings. Cause for concern, however, is provided by the continued rise in labour costs, high interest rates, and currency instability.

On behalf of the Board of Directors,



*T. H. McClelland, Chairman*

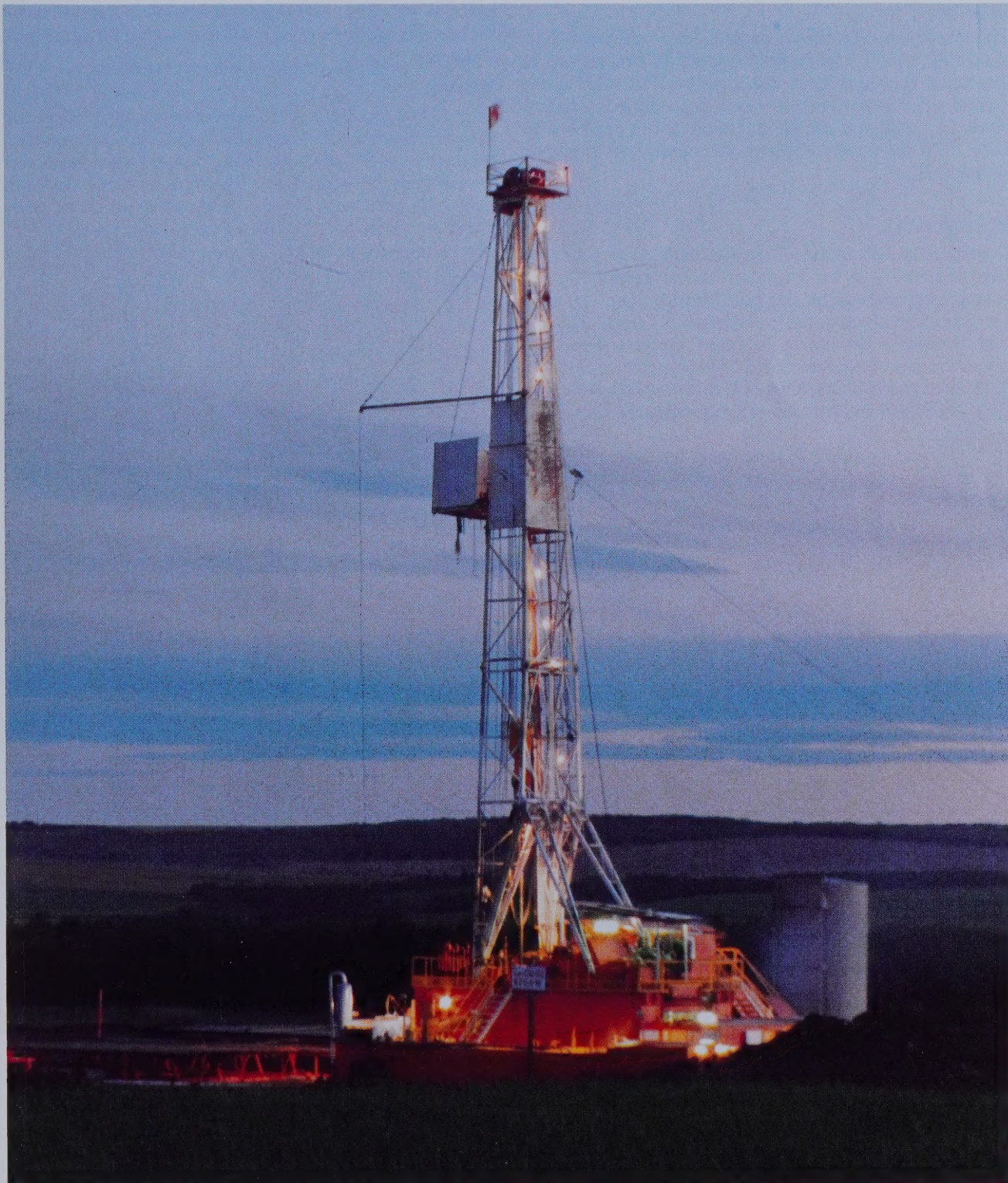


*R. G. Duthie, President*

Vancouver, B.C.  
March 2, 1979



## Review of 1978



Development drilling in the Eagle field near Fort St. John, northeastern British Columbia, continued through 1978.



## Markets

### General

The moderate economic expansion of Western Bloc countries which continued through 1978 has led to increased demand for most commodities. For some metals, surplus stocks and/or excess production capacity tended to suppress prices for much of the year, but by early 1979 the prices of almost all metals had improved significantly.

### Molybdenum

Continued activity in the oil and gas pipeline sector of the steel industry was an important factor contributing to sustained growth in the demand for molybdenum. Consumption increased by the traditional 6-7% over 1977, and real shortages developed in most markets. Producer prices were increased twice in 1978 and again on January 1, 1979 to reach a new level of U.S. \$14.46 per kilogram (U.S. \$6.56 per pound) for molybdic trioxide CIF Japan or Europe.

The strong market has prompted renewed interest in new mine development with as many as five primary and two by-product mines in North America now under evaluation for possible start-up by 1986. At least some of these supplies appear needed to fill the steadily increasing demand.

### Copper

Consumption of refined copper in Western Bloc countries increased by nearly 5% to about 7,200,000 metric tonnes in 1978. Mine and refinery production was interrupted by political instability in Africa and by closures and strikes in North America. Reported metal stocks held by producers and metal exchanges were reduced significantly but large surpluses remained which held the average 1978 LME price for wirebars to about U.S. \$1.37 per kilogram (U.S. 62¢ per pound).

Some further improvement in consumption is anticipated in the first half of 1979 and additional declines in refined stocks are currently projected. As a result, copper prices in the current year should be significantly better than those of 1978. In the first two months of 1979 the price rose to the U.S. \$1.98 per kilogram (U.S. 90¢ per pound) level.

### Zinc

Zinc consumption improved during 1978, particularly in the United States where automobile production and residential construction have been strong. However, the improvement has been restrained by slow growth in capital expenditures and by increasing use of thin-wall die castings in the auto industry.

Many producers lost production through strikes, cut-backs, and work holidays, which reduced their effective use of capacity to about 76%. These production losses,

together with Sino-Soviet purchases, led to a firmer market and ultimately to price increases during the latter part of the year.

### Mercury

Demand in most countries increased slightly during the year, and mine closures in Spain, Italy, and Mexico caused production to fall below consumption. Adequate supplies are available, however, from large stocks which have been built up in past years. During 1978, prices remained fairly stable at around U.S. \$153 per flask (a flask contains 34.5 kilograms or 76 pounds). The price rose to the U.S. \$200 per flask level in the early months of 1979.

### Coal

Thermal coal markets were depressed during the latter part of the year. United States utilities worked down inventories built up prior to a strike whose effects were less severe than anticipated. Prices for non-contract sales fell because of reduced demand. Utilities are increasingly pressing for coal of a grade (primarily low sulphur) which allows them to comply with state limits on emissions.

### Gold

During 1978 the price of gold reached new record high levels of about U.S. \$7.88 per gram (U.S. \$245 per ounce). Much of the price increase was caused by speculation against the weak U.S. dollar. In the long term, mine supply is expected to continue a decline which began in 1970. The long-term price outlook is therefore reasonably good.

### Silver

The market fundamentals for silver remain favourable and the deficit between mine supply and industrial consumption increased from 5,070,000 kilograms in 1977 to about 5,600,000 kilograms during 1978. The supply deficit is expected to continue and may increase with improving economic conditions.

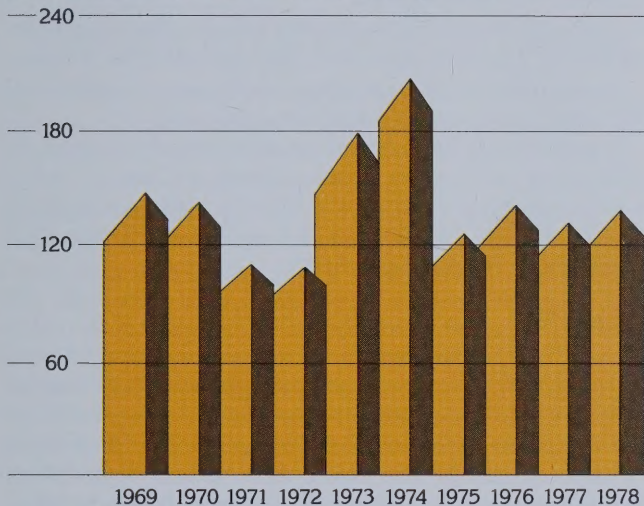
### Oil and Gas

The current price per barrel of western Canada crude oil is \$12.75 FOB Edmonton, Alberta. A recent agreement between the federal and provincial governments will increase this price by \$1.00 per barrel on July 1, 1979, and by an additional \$1.00 per barrel on January 1, 1980.

The current price for natural gas in Canada is \$2.00 per million BTU's, FOB Toronto gate. The gas price is based upon 85% BTU value of the price for crude oil which will result in two price increases at the Toronto gate of approximately 16¢ per million BTU on August 1, 1979 and 16¢ per million BTU on February 1, 1980. The current export price for natural gas is U.S. \$2.16 per million BTU at Emerson, Manitoba and may only be changed by the federal government.

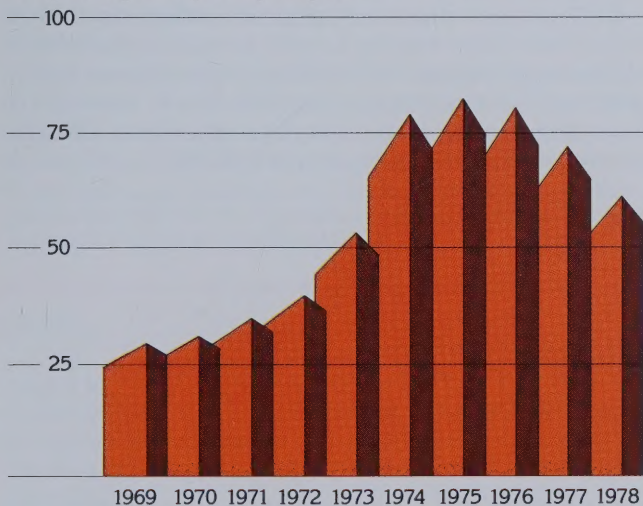


Yearly average copper prices per kg\* (in U.S. cents)



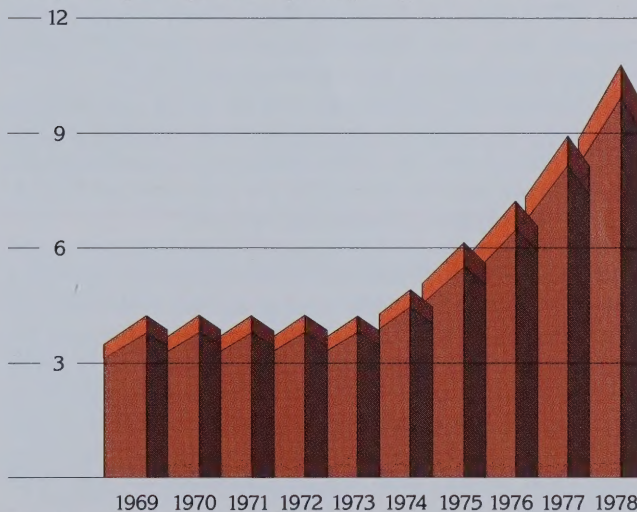
\*L.M.E. cash settlement wire bar

Yearly average zinc prices per kg\* (in U.S. cents)



\*European producer price

Yearly average molybdenum prices per kg\* (in U.S. dollars)



Disulphide ■ Trioxide ■  
 \*Published major producer price f.o.b. mine



## Exploration

### Hard Minerals

Agreements to earn major positions in a number of prospects were completed.

In late 1978, an agreement was completed in which Placer acquired a 70% interest in Equity Silver Mines Limited, owner of the Sam Goosly silver-copper-gold property near Houston, British Columbia. The decision to proceed with development of the property was made on March 2, 1979. Placer's preliminary calculation of mineable reserves is 27,970,000 tonnes grading 106.3 grams silver per tonne, 0.384% copper and 0.960 grams gold per tonne.

Agreement was reached with Adanac Mining and Exploration Limited in December for the ultimate purchase of a 70% interest in Adanac's Ruby Creek molybdenum property near Atlin, British Columbia. Diamond drilling and additional studies will be carried out in 1979.

In September, Placer Amex entered into a joint venture agreement to explore a uranium deposit situated in Oregon, approximately ten miles northwest of the McDermitt Mine. Placer Amex's interest in the joint venture is 51%. Further testing and evaluation is planned.

Work continued on the Howard's Pass lead-zinc property on the Yukon - Northwest Territories border. Diamond drilling amounted to 4880 metres on two main areas of interest and was successful in expanding the size and the tonnage potential in one zone. This programme is being funded by U.S. Steel which is continuing its option to purchase a 49% interest. Diamond drilling was also carried out on the Clea tungsten prospect adjacent to the Howard's Pass project and will be continued in the 1979 field season.

In eastern Canada, a programme of limited diamond drilling was continued in the Restigouche - Murray Brook area of New Brunswick. Several uranium prospects in Quebec were investigated.

Exploration in the United States was directed toward the search for uranium, coal, lead, zinc, and precious metals.

A programme of exploration continues in Australasia, focusing mainly on gold and molybdenum.

Exploration in Latin America was principally focused on gold, silver and copper. Three projects in Chile are being carried out in partnership with Inmetal Ltda., a subsidiary of Cia. Electro Metalurgica S.A. which produces steel products for the mining industry.

### Oil and Gas

Placer CEGO participated in 26 exploratory wells (1977 — 27) of which 11 were classified as gas wells and 2 as oil wells, with 13 abandoned. In the Kaybob area of Alberta the Company participated in 2 wildcat wells; one of these discovered gas in the Viking zone with a dual, Lower Cretaceous gas and Nisku oil discovery in the second. During the year CEGO's acreage position in this area was increased to 6,950 hectares. An active drilling programme, utilizing two drilling rigs in which CEGO holds a 25% interest, is underway.

Drilling has commenced on the fifth well on Block 21/2 in the North Sea to test the Jurassic formation near a 1977 oil discovery. Early in 1979, drilling will commence on the sixth well on this block to test the Lower Cretaceous formation near an earlier gas discovery. Placer CEGO's carried interest in this programme is 6.25%.



# Operations

## CANADA

### Endako Mines Division (100% interest)

Earnings in 1978 reflected the continual improvement in the molybdenum market.

Mining, milling and production exceeded original estimates in the mining plan. The mine's production of 6,363,000 kilograms of molybdenum disulphide does not include 629,000 kilograms purchased by the mine or processed on contract in its roasters. Roasting capacity will be increased from the present 7,700,000 kilograms of molybdic trioxide per year to 10,800,000 kilograms by mid-1980. Construction started on a new facility for the production of lubricant-grade molybdenum disulphide. This plant will supply customers manufacturing specialty lubricants in Canada, the United States, Asia and Australia when it commences production in mid-1979.

Mining in the southeast pit was completed in October and all ore production is now from the Denak pit where the removal of approximately 765,000 cubic metres of overburden by contractor was completed earlier in the year.

Ore reserves were estimated on December 31 at 219,000,000 tonnes at an average grade of 0.082% molybdenum\* at a cut-off grade of 0.048% molybdenum. This is an increase of 9,000,000 tonnes over the 1977 estimate and reflects the fact that higher metal prices make it possible for formerly uneconomic material to be reclassified as ore.

Negotiations with Local 17 of the Canadian Association of Industrial, Mechanical and Allied Workers (CAIMAW) were not successful and production by the mine was reduced by a strike on February 15, 1979.

\*Grade was formerly reported as the percentage of molybdenum disulphide contained in the ore. For greater accuracy this has been changed to percent of contained molybdenum.

### Endako

	Years ended December 31,	
	1978	1977
<b>FINANCIAL</b>		
Gross revenues .....	\$84,335,000	\$78,065,000
Income and resource taxes .....	\$23,902,000*	\$15,800,000
Net earnings .....	\$19,557,000	\$18,548,000
<b>OPERATIONS</b>		
Ore milled — t .....	10,657,000	9,085,000
Daily average — t .....	32,500	26,400
Grade — % Mo .....	0.081	0.097
Recovery of molybdenum — % .....	73.50	78.80
Contained molybdenum produced — kg .....	6,363,000	6,905,000
purchased — kg .....	119,200	145,600
Contained molybdenum shipped — kg .....	6,150,000	7,840,000
Inventory at year-end — kg .....	1,564,000	1,346,000

\*Higher taxes result from higher pre-tax earnings and the reduction of earned depletion credits.

### Placer CEGO Petroleum Limited (100% interest)

Development wells drilled during the year totalled 65 and resulted in 35 gas, 20 oil, and 2 injection wells. Eight wells were plugged and abandoned.

### Placer CEGO

	Years ended December 31,	
	1978	1977
<b>FINANCIAL</b>		
Gross revenues .....	\$18,198,000	\$15,021,000
Income taxes .....	\$ 3,835,000	\$ 2,484,000
Net earnings* .....	\$ 3,220,000	\$ 2,991,000

### OPERATIONS

Oil and natural gas liquids produced — bbls .....	1,021,000	796,200
Natural gas produced — m <sup>3</sup> .....	242,200,000	295,800,000

\*Net of amortization of excess consideration paid over underlying book value of net assets acquired.

Year-end estimated reserves before deduction of royalty are as follows:

	Proven <sup>1</sup>	Probable <sup>2</sup>	Total
Crude Oil (barrels)	8,410,000	7,212,100	15,622,500
Natural Gas (m <sup>3</sup> )	3,800,400	1,056,200	4,856,600
Natural Gas Liquids (barrels)	1,389,500	31,400	1,420,900
Sulphur (tonnes)	224,000	28,000	252,000

<sup>1</sup>Proven reserves are considered to be those reserves which, to a high degree of certainty, are recoverable at commercial rates under present depletion methods and operating conditions, and current prices and costs.

<sup>2</sup>Probable crude oil reserves are considered to be those reserves commercially recoverable as a result of the beneficial effects which may be derived from the future institution of some form of enhanced recovery scheme or as a result of the more favourable performance of the existing recovery mechanism than that which could be deemed to be proven at this time.

Placer CEGO's gross land holdings of 1,212,000 hectares were equal to a net total of 373,000 hectares at year-end.

The Eagle field near Fort St. John, British Columbia, continues to be of considerable significance for Placer CEGO. At year-end, 29 wells were producing at a rate of 3,344 barrels per day. Placer CEGO has a 50% interest in the wells and in production. Preliminary reservoir studies indicate that pressure maintenance and water flood injection is feasible and economically desirable. A 14-well, infill drilling programme is in progress as part of a recovery project which is expected to double primary recovery from the reservoir.



### Gibraltar Mines Limited (71.9% interest)

A labour dispute halted mining operations on May 26 and extended through to the end of 1978. Prior year comparisons will, therefore, reflect unequal operating periods.

The dispute with Local 18, CAIMAW, followed the company's rejection of union demands amounting to an increase of 30% over two years. The union delivered strike notice and engaged in disruptive actions which left the company with no alternative but to initiate a lock-out on May 26. The lock-out was lifted on October 4 and the union immediately initiated strike action which continued through February 6, 1979. With the assistance of the British Columbia Department of Labour a settlement was then reached in which striking workers returned to their jobs with the most significant unresolved issues subject to binding arbitration. The new collective agreement extends to February 29, 1980 with a possible extension beyond that date at the union's option.

Stage II of the Gibraltar East pit will become the major source of ore when the present Stage I mining of the Pollyana pit ceases. The cost of stripping overburden and removing waste rock in Gibraltar East will reach an estimated \$24,300,000 during Stage II mining. Gibraltar's past practice has been to charge stripping costs against current year's income but due to their magnitude, these costs will now be capitalized and written-off over the three to four years of Stage II mining.

The molybdenum recovery circuit was reactivated in January in response to price improvement.

Estimates of mineralized reserves on December 31, 1978 at a cut-off grade of 0.25% copper were 254,000,000 tonnes at an average grade of 0.36% copper and .009% molybdenum.

#### Gibraltar

	Years ended December 31,	
	1978*	1977
<b>FINANCIAL</b>		
Gross revenues .....	\$22,399,000	\$41,247,000
Income and resource taxes .....	\$ (1,495,000)	\$ (227,000)
Loss .....	\$ 2,381,000	\$ 142,000
Dividends paid .....	—	\$ 5,706,000
<b>OPERATIONS</b>		
Ore milled — t .....	5,136,000	12,765,000
Daily average — t .....	35,400	35,200
Grade — % copper .....	0.38	0.38
Recovery of copper — % .....	83.68	82.06
Concentrate produced — t .....	60,400	140,200
Copper in concentrate — kg .....	16,327,000	39,364,000
Copper concentrate shipped — t .....	74,400	144,600
Inventory at year-end — t .....	800	15,200

\*Normal mine operations were halted by a labour dispute which lasted from May 26, 1978 to February 6, 1979.

### Craigmont Mines Limited (44.59% interest)

Earnings improved significantly due to lower unit costs of production resulting from a higher grade of ore milled and improved mining efficiency.

The mine continues to produce underground ore at a cut-off grade of 1%. Although it is now mining the last of its

ore reserves, the above factors together with the higher copper price have made it possible to bring additional material, previously considered subeconomic, into the estimates of ore reserves. Underground mining is expected to continue into the fourth quarter of 1979, with production of concentrate to continue into the first quarter of 1980. A one-year, collective agreement, to January 28, 1980 has been signed with Local 6523 of the United Steelworkers of America.

Exploration for new ore reserves in the area of the mine was not successful. Approximately 145 kilometres north of the mine, copper mineralization ranging from 0.75% to 4.14% was discovered in a diamond drilling programme carried out in late 1978. Further testing of this prospect is required before its value, if any, can be established. Estimates of ore reserves, based on exploration to date, do not indicate a potential mine.

#### Craigmont

	Years ended October 31,	
	1978	1977
<b>FINANCIAL</b>		
Gross revenues .....	\$21,827,000	\$19,916,000
Income and resource taxes .....	\$ 3,455,000	\$ 2,233,000
Net earnings .....	\$ 3,572,000	\$ 2,359,000
Dividends paid .....	\$ 4,062,000	\$ 4,062,000
<b>OPERATIONS</b>		
Ore milled — t .....	1,907,000	1,860,000
Daily average — t .....	5,300	5,100
Grade — % copper .....	1.38	1.17
Recovery of copper — % .....	92.97	94.65
Concentrate produced — t .....	85,500	73,500
Copper in concentrate — kg .....	24,409,000	20,555,000
Iron concentrate produced — t .....	43,100	38,300
Copper concentrate shipped — t .....	73,100	63,800
Inventory at year-end — t .....	25,800	14,000

### Mattagami Lake Mines Limited (N.P.L.) (27.12% interest)

Earnings rose significantly in response to improving markets for zinc and copper. Production of these two metals in concentrates was 6.5% and 1.0% respectively above plan. Recovery of zinc, at 92.7% for the year, was the highest ever attained. Proven ore reserves for the mine near Matagami, Quebec, were 6,916,000 tonnes at an average grade of 7.3% zinc, 0.60% copper, 30.86 grams silver and 0.514 grams gold per tonne.

At the Mattabi mine near Sturgeon Lake, Ontario (60% owned by Mattagami) production of copper and zinc concentrates was close to target while lead and silver production was considerably above target. Ore reserves at year-end were estimated at 3,828,000 tonnes grading 7.21% zinc, 0.57% copper, 0.74% lead and 95.31 grams per tonne of silver.

The mine at Lyon Lake near Sturgeon Lake remained on a care and maintenance basis through the year.

The electrolytic zinc reduction plant at Valleyfield, Quebec, administered by Canadian Electrolytic Zinc Limited, operated at about 78% of capacity. Metal ship-



ments increased during the latter part of the year and stocks were reduced to normal levels.

## Mattagami

Years ended December 31,  
1978 1977

### FINANCIAL

Gross revenues	\$99,544,000	\$96,010,000
Income and mining taxes	\$15,661,000	\$12,451,000
Consolidated net earnings	\$19,714,000	\$11,648,000
Dividends paid	\$ 2,661,000	\$11,909,000

### OPERATIONS — Mattagami

Ore milled — t	878,500	946,400
Daily average — t	2,400	2,600
Grade — % zinc	7.6	6.6
Recovery of zinc — %	92.7	92.1
Grade — % copper	0.52	0.52
Recovery of copper — %	72.4	76.2
Zinc concentrate produced — t	116,100	108,500
Zinc in concentrate — kg	61,576,700	57,840,800
Copper concentrate produced — t	13,600	15,400
Copper in concentrate — kg	3,298,600	3,760,300

### OPERATIONS — Mattabi

Ore milled — t	871,700	934,500
Daily average — t	2,390	2,560
Grade — % zinc	6.5	8.4
Recovery of zinc — %	87.5	89.0
Grade — % copper	.83	1.01
Recovery of copper — %	85.5	86.6
Zinc concentrate produced — t	91,700	127,300
Zinc in concentrate — kg	49,573,200	69,115,000
Copper concentrate produced — t	25,100	30,900
Copper in concentrate — kg	6,183,400	8,158,900

## UNITED STATES

### McDermitt Mine (51% interest)

The large stocks of mercury available in the hands of overseas producers continued to depress the market and production of mercury at the McDermitt mine in Nevada was reduced by 20% as a result. This, in turn, increased the mine's unit costs and reduced its earnings. Placer's 51% share of the joint venture's production in 1978 was equal to 12,300 flasks.

A new study of McDermitt's ore reserves was completed and at year-end estimated mineable reserves were 2,193,000 tonnes of ore at an average grade of 4.98 kilograms of mercury per tonne. This figure may vary in response to fluctuating market conditions.

Strict adherence to employee health and safety procedures was maintained with continued positive results. Additional improvements in operating conditions resulted in slightly lower mercury levels throughout the plant.

## McDermitt

Years ended December 31,  
1978 1977

### FINANCIAL

Company's share of earnings	\$356,000	\$601,000
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### OPERATIONS

Concentrator feed — t	232,400	191,700
Grade — kg/t	4.97	5.85
Recovery of mercury — %	85.7	83.0
Concentrate produced — t	1,314	1,268
Mercury produced — flasks	24,100	30,100
Mercury shipped — flasks	18,300	28,350

### Placer Coal Inc. (100% interest)

This company was incorporated early in 1978 to acquire two bituminous coal surface mines in northeastern Kentucky and a coal-loading dock on the Big Sandy River. Operating results for this first year have been disappointing and a loss was recorded as a result of declining spot sales.

Increased costs and reduced productivity due to new surface mine regulations of the United States Government contributed to the loss, although improved operating efficiency and dock revenues were offsetting factors.

Coal reserves totalled 975,000 tonnes after analysis of drilling results and of leases, plus assessment of the impact of the new surface mine regulations indicated that a large portion of the lease areas are no longer mineable. Negotiations are underway to obtain additional coal leases in more favourable mining areas.

## Placer Coal

Year ended  
December 31,  
1978

### FINANCIAL

Gross revenues	\$6,719,000
Loss before extraordinary loss	\$1,143,000
Extraordinary loss*	\$4,095,000

### OPERATIONS

Coal mined — t	209,700
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\*Reduction in economically recoverable coal reserves.

## PHILIPPINES

### Marcopper Mining Corporation (39.89% interest)

Mill throughput was the highest recorded by the mine while the ore grade was above average. This combination resulted in production of copper at an appreciably higher level than in any previous year. Gold and silver production also increased significantly. Geological reserves in Tapian were reduced by mining operations to 64,000,000 tonnes



with an average grade of 0.57% copper at a cut-off grade of 0.4% copper.

A U.S. \$34,000,000 loan was obtained for financing the development of the San Antonio orebody. By year-end, U.S. \$13,000,000 of this amount had been drawn to cover capital expenditures to date. Two pneumatic dredges were assembled and began removing tailing overlying the orebody in July. A new dam to provide water for the dredging and an additional tailing disposal system were constructed to transport the dredged slurries away from the San Antonio site. Dredging has been satisfactory in the sandy material although some difficulties have been experienced in areas of finely ground tailing. Various proposals for remedying this problem are being tested.

The two-year study by British Columbia Packers Limited and Marcopper on the potential for buying and processing tuna fish in the Philippines has shown that the resources are available. The economic viability of setting up a processing plant is under study.

#### Marcopper

Years ended December 31,  
1978 1977

#### FINANCIAL

Gross revenues .....	\$79,958,000	\$52,878,000
Income taxes .....	\$13,344,000	\$ 5,080,000
Net earnings .....	\$18,850,000	\$ 6,542,000
Dividends paid .....	\$12,199,000	\$11,298,000

#### OPERATIONS

Ore milled — t .....	9,459,000	9,136,700
Daily average — t .....	25,915	25,032
Grade — % copper .....	0.64	0.56
Recovery of copper — % .....	87.2	88.8
Concentrate produced — t .....	183,200	172,700
Copper in concentrate — kg ....	54,025,000	47,236,000
Gold in concentrate — g .....	2,283,400	1,401,000
Silver in concentrate — g .....	9,683,600	7,483,000
Copper concentrate shipped — t .....	188,400	170,400
Inventory at year-end — t .....	12,900	18,000

## AUSTRALIA

### Placer Exploration Limited (100% interest)

Lower inflation led to some improvement in the Australian economy, but this had little effect on industry which generally continued a policy of consolidation. Placer Exploration experienced a loss as a result of a write-down in the value of grazing properties and reduced sales.

Fox Manufacturing Company (100% interest) had sales of \$27,640,000 (1977 — \$33,048,000) reflecting the downturn in new business opportunities in Australia and difficulty in obtaining new overseas contracts in the present world economic climate. These conditions are likely to continue in 1979. A new contract was secured in Mexico, while the contracts for conveyors to New Zealand and Tunisia should be completed early in 1979. Associated Plywood Sales (100% interest) suffered from a lack of capital projects in Australia, particularly in the

building industry although some improvement was evident in the last two months of the year. Revenues in 1978 were \$10,191,000 (1977 — \$8,083,000). Molybond Laboratories (100% interest) had a moderate increase in sales during the year and actively pursued overseas markets, particularly in Canada and Japan. Northern Cattle Company's (50% interest) stock numbers were reduced to 75,800 cattle and 33,600 sheep (1977 — 79,000 cattle and 37,300 sheep) due to seasonal conditions resulting in a smaller number of brandings and fewer replacement purchases of sheep. There was a marked upturn in the industry during the latter half of 1978 and sales increased to \$2,224,000 (1977 — \$1,716,000).

#### Placer Exploration

	Years ended December 31,	
	1978	1977
Gross revenues .....	\$39,864,000	\$42,944,000
Income taxes .....	\$ 753,000	\$ (243,000)
Earnings (loss) before extraordinary loss .....	\$ (549,000)	\$ 224,000
Extraordinary loss* .....	\$ 1,930,000	—

\*Reduction in carrying value of Australian grazing properties.



## The Mine Development Process—The Service Sector



Tradesmen, such as this welder, are an integral part of a successful mining operation.



# The Mine Development Process—The Service Sector

## INTRODUCTION

*In five preceding essays on the mine development process, Placer has sought to interpret this complex industry for its shareholders and other interested individuals. The series to date has dealt with the genesis of minerals, an overview of the mining industry, its administration, mineral exploration, mine construction and operation. These are the most significant divisions of mineral development, but there is another part which exists around and between the major functions. It is composed of diverse skills, some of which are found in every industry and some of which are unique to mining. This group cannot be classified by such designations as "Exploration" or "Administration" because it is composed of many activities, different from each other and different from the major functions, yet mining could not operate without them. This is why the last essay in the series will deal with the important role of "The Service Sector."*

Many industries have well-known skills or jobs which become symbols of the industry as a whole. Mining for instance is often represented by a man in overalls, rubber boots and hard hat with a lamp; yet the symbol of the underground miner holds for only a part of the business today. In open pit mining which is common in British Columbia, the miner works on the surface, often in the cab of a large machine such as an ore truck, drill or shovel. Equally important are operators of equipment used in the concentration of the mineral.

Another figure often associated with mining is that of the hardy individual from another age who carried out all the tasks associated with mining; he staked his claim, blasted and timbered his tunnels and loaded and hauled his own ore. Few of these miners are left today because the physical risks were high. Muscle power alone could produce only two or three tons of ore per day, and this is no longer sufficient to compete in a world of specialized skills.

Today the methods and machines have been developed which make it possible to mine ores previously considered waste because their mineral content was so low. Within the last four decades our principal source of new mineral production has been these lower quality, but more numerous, ore bodies. To handle the higher volume of ore, mines and concentrators have become steadily larger. Those of 50 to 60 tonnes per day were replaced by others capable of processing 500 tonnes per day through the concentrator. These in turn gave way to others with capacities of 5,000 tonnes per day. The movement toward greater capacity continued until today 35,000 to 40,000 tonnes per day or even larger, is not unusual.

## The Age of Specialization

The mining of lower grade ore grew in direct ratio to our improved ability to use greater mechanization. When



Surveying is one of the skills which helps to make mining more efficient. Jim Turner and David Rossi take a sighting at the west end of the Endako pit.

mines added to this ability the further refinement of skills specialization in the work force, mining efficiency improved again. The benefits of such specialization are most apparent in large mines employing from 500 to 2,000 or more people. At such locations a relatively small number of people is directly engaged in the production of minerals. Counting those involved directly in ore production, such as drillers, blasters, shovel operators and ore truck drivers, the number amounts to approximately 25% of the work force. Add those engaged in concentrating the ore and staff whose jobs are primarily concerned with production, and the ratio is still less than 40%.

The remainder, about six out of every ten employees, constitutes the service sector. Their skills support those who are directly involved in the production of ore and concentrate.

A mine has some of the same maintenance problems as the average home although they are different in scale. For instance, there are electricians, painters, plumbers, and carpenters. But there are also certain skills seldom used around the home; these are the skills that draftsmen, accountants, welders, heavy duty mechanics and millwrights provide. Such personnel must be located on site because mines cannot afford to halt operations and wait until a mechanic or machinist travels from town.

In fact, by maintaining well-equipped repair shops and qualified maintenance personnel at the mine, repairs are



carried out more efficiently because maintenance personnel are familiar with the job. The incidence of equipment malfunction is also reduced because, with a full range of journeymen skills available, the mine is able to put its equipment on a regular maintenance schedule. Each motor, shaft, bearing, belt, chain, tire or seal is checked regularly with the result that unexpected equipment malfunction occurs less often. Full-scale shutdowns are planned on a periodic basis so that large repair or maintenance jobs can be carried out without undue loss of production.

### **Warehousing — the Art of Knowing Where**

All modern industries rely heavily on mechanization and this means an extensive inventory of spare parts. It is not unusual for a large mine to stock up to \$5,000,000 in replacement parts and materials. Keeping track of hundreds of thousands of items on warehouse shelves requires specialized skills to ensure that items are on hand and at the right location.

Safety for employees is a full-time responsibility at any operation which uses explosives and large equipment. The safety supervisor's job is to help employees avoid

injury and to this end such personal items as hard hats, safety shoes and safety glasses are normally provided. Other types of protection may include emergency apparatus for fighting fires, mine rescue, rendering first aid, transporting accident victims, or for treating special types of industrial injuries. Training to increase the individual employee's awareness of safety is another form of protection provided by a mine.

Mines are also concerned for the safety of the general public. At some, a security guard at the main gate oversees traffic in and out of the mine since many visitors may be unfamiliar with the operation and could be a hazard to themselves, as well as the work force.

The personnel department recruits the many skills, and administers the benefit programmes which are generally provided by a modern mine. It supplies data to a number of government agencies, such as Workers' Compensation, the Mine Safety Officer and Manpower and ensures that income tax, unemployment insurance and Canada Pension requirements are met. This office also handles questions relative to the obligations of the Company and the union. Interpretation of this labour agreement is frequently a complex task.



Staffs of engineering consulting firms provide important services during the busy months of mine development.





Regular servicing and checking of large, mobile equipment by heavy duty mechanics like Jack Fitzer helps ensure that mining production commitments are not held up by equipment failure.

### Keeping Track

A well-run mine has rapid access to information on costs and revenues. It is up to the accounting department to establish a system that will regularly tell a mine manager how the operation is performing financially. This department's normal responsibilities for such things as payroll or accounts payable are often handled today on computers and it may also be in charge of purchasing supplies and transporting the product out of the mine.

Another group of employees is located close to centers of transportation, communication, finance and government. These people may never see the mining operation although their skills contribute significantly to its efficiency.

Most mines, for instance, require the services of lawyers who, by staying abreast of regulations and proposed legislation, help the mine to observe the many rules which apply to most commercial activities. For instance, legislation touches on land use, environment, safety, taxation, export trade, foreign exchange and human rights.

Also operating at a distance from the mine are those who market its mineral output. Sales agreements for minerals often span months or years, although they may also be for single shipments only. Marketing personnel need to be aware of the market's possible movements in the weeks or months ahead. They also observe and report

on fluctuations in exchange rates and transportation rates, marine insurance and marine charters.

In the purchasing group everything from "C" clamps to spark plugs, and from small tires of 15 kilograms weight to massive ore truck tires of 3,500 kilograms, are sought, evaluated, compared and bought on a routine basis. Nothing is too large or too small that its price might not be lower, its delivery date improved or its reliability in service increased. This group often helps suppliers and manufacturers by passing suggestions from operators back to them. The result is frequently improvement in performance or safety features of the product.

Computer services are often located close to the administrative centre of a company since they service a large number of departments. Within a few minutes the computer may assist an engineer in the design of an open pit, send payroll data over hundreds of miles of telephone line to print cheques at the mine site, project the profit figures for a potential mine and, working within an economic model, forecast market demand and metal prices for years into the future.

Shareholders receive quarterly and annual financial reports on company affairs and the preparation of these reports requires other specialized skills. Again, this job is best carried out in proximity to financial and printing services.



### Special Problems — Special Skills

A third group contributing to the success of a mine is composed of people who are not employees. In this group are consultants such as the soils testing engineer whose sophisticated instruments and knowledge will verify the stability of a tailing dam; the firm of legal specialists in labour, or tax matters which assists in analyzing the impact of legislation on a proposed course of action; the small manufacturer whose specialty might be fiberglass components and who serves not only mining, but pulp and paper, petroleum and chemicals; or the consultant who has found that a market exists for technical advice on environment protection.

The need for environment protection is recognized by industry. Dust collectors, electrostatic precipitators and numerous other sophisticated devices are required at many locations and are supplied by a new kind of technology which did not exist thirty years ago.

The following examples of typical jobs in the service area have been selected to illustrate the foregoing general statements. The individuals chosen here as examples, represent many others, all of whom contribute to the efficient operation of Placer.

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#### Ira Slater

The blacksmith is no longer the common sight that he once was, but in the mining industry a large measure of self-sufficiency is necessary, and blacksmithing is still a valued skill.

Ira Slater joined Craigmont in 1962. He uses the traditional implements of his trade: the hammer, anvil, hotsaw, and forge. Although some modern improvements have been made in the form of trip hammers and motorized

bellows, the essential ingredient of judgment must still be supplied by the tradesman. Ira has contributed to the mine's efficiency by fabricating metal tools or devices not readily available from suppliers, such as scaling bars, bullhorns, vent duct hangers, and belt chisels.

Often a mine will use innovative solutions for particular problems. Thus, when lumber skidders were rebuilt for use in underground mining, the blacksmith's skills were added to those of mechanics and welders so that each unit was, in effect, custom made for its new job.



#### Curley Colwell

Curley Colwell has been a purchasing agent for the Placer group of companies for 28 years. Basically, his job is locating the best goods or services at the least cost, but that definition is, perhaps, too simple.

Materials which wear out or fail to perform as expected are much more costly than their price tag would indicate. For instance, by the time a diesel generator has been flown into a remote work site, placed in service and found not to have the required dependability, the cost of field repairs or returning it to a supplier can become exorbitant. A higher-priced unit with a proven and reliable record of service would have been the less expensive purchase in the long run.

A buyer for a mining company should have a good general knowledge of the industry because he makes decisions on such diverse items as reagents for mineral flotation, high pressure pumps, corrosion-resistant metals, idlers, pulleys and truck tires. He may also negotiate transportation contracts or buy first aid and mine rescue equipment.

Because of the range of goods or services in which he deals, the buyer is usually located close to a business





centre where suppliers and transport are available. That is why a few skilled buyers in large centres provide a valuable service to the mine. They can devote their time to finding the best product at the best price, allowing the mine to concentrate on the production of saleable minerals.



1973 after obtaining degrees in, and practicing, both law and geology.

Familiarity with the industry and with the Company's particular activities in that industry is a primary reason for in-house legal counsel. A full-time corporate lawyer will often anticipate and avoid problems before they arise.

John Eckersley deals with all legal matters referred to him. These are primarily contracts of various kinds — exploration options, construction, and transportation and marketing contracts. He is specifically assigned responsibility for Endako marketing contracts and all Gibraltar legal work except employee housing. Currently he is handling all legal matters related to the Equity Silver project.

In the realm of government, John and many other specialists in the industry study all new or proposed legislation for its potential impact on the industry.

Outside legal firms may still be used because their large staffs, research facilities and specific expertise represent a valuable extension of any corporate legal service. Even here, however, the Company's legal staff will be closely involved to ensure that the most efficient use is made of the outside counsel's time and skills.



### Elaine Wolfson

Among the many measures taken to safeguard employees at work is that of having a trained first aid attendant on duty at all times.

Elaine Wolfson has been a first aid attendant-warehouseperson at the Endako mine since 1974 and holds an Industrial First Aid B Ticket.

She has been trained to give speedy assistance to injured workers and to minimize their discomfort. Providing prompt attention can reduce the extent of an injury and prevent more serious complications.

Fortunately, there are few calls for Elaine's first aid training and most of her time is spent as a warehouseperson. Her responsibilities here include shipping, receiving, storing and issuing parts and supplies. Inventory control is another warehouse responsibility that contributes to the mine's efficiency.

### John Eckersley

The proliferation of rules and regulations affecting mining has led companies to retain full-time legal counsel. John Eckersley, one of three staff lawyers, joined Placer in



## Operating Review 1978-1976

The Company's earnings are dependent primarily upon the price levels and sales volumes of molybdenum products and copper concentrate, two of its principal products.

### 1978 compared with 1977

Net earnings decreased 6% to \$20,184,000 from \$21,509,000 after reduction by two extraordinary items totalling \$6,025,000. Earnings before extraordinary items increased 22% to \$26,209,000 from \$21,509,000 mainly as a result of improvements in the earnings of associated companies, Marcopper, Mattagami and Craigmont which were attributable to higher sales volumes and metal prices. The Company also benefitted significantly from the premium on its U.S. dollar revenues.

Adverse factors were the losses incurred by Gibraltar as a result of a labour dispute which disrupted operations from May 26, 1978 to February 6, 1979 and by Placer Coal Inc., which was acquired in 1978, primarily because of production changes required to comply with new mining regulations.

Molybdenum was the most significant contributor to earnings. Its average price increased 35% but sales increased only 7% to \$83,406,000 because of a 22% decline in sales volume. Gibraltar's copper sales decreased \$19,000,000 due to a volume reduction of 51% arising from the labour dispute. The new coal operations contributed \$6,664,000 to sales.

Cost of sales decreased 13% mainly as a result of the disruption of production at Gibraltar.

The increase in exploration activity in the United States was the main reason for a \$2,190,000 or 22% increase in exploration expense.

Interest expense, including foreign exchange, increased \$2,134,000 or 37% as a result of additional loans, higher interest rates and the weaker Canadian dollar.

Income and resource taxes increased \$6,670,000 or 43% primarily because of Endako's higher pre-tax earnings and less depletion allowance available for deduction

from the mining income generated by that division.

Two extraordinary items reduced 1978 earnings. The value of the newly acquired U.S. coal properties was written-down by \$4,095,000 to reflect a reduction in economically recoverable coal reserves. The Company's interest in grazing properties in Australia was also written-down by \$1,930,000 when a lower valuation of some of the properties was determined.

### 1977 compared with 1976

The increase in the price of molybdenum on international markets made the most significant contribution to the 20% improvement in earnings to \$21,509,000 from \$17,960,000. The Company also benefitted from the premium on its U.S. dollar revenues. Earnings were adversely affected by the low price of copper which averaged U.S. \$1.30 per kilogram (U.S. \$0.59 per pound) on the London Metal Exchange.

Endako's molybdenum sales increased 58% to \$77,718,000, of which 73% was attributable to higher prices and 27% to volume. Gibraltar's copper concentrate sales increased 48% to \$39,291,000, essentially due to a 19-week strike in 1976. Oil and gas sales included \$12,557,000 as a result of the acquisition of Canadian Export Gas & Oil Ltd. (CEGO) at a total cost of \$53,808,000.

Cost of sales increases were primarily related to higher volumes of molybdenum, copper concentrate and manufactured products.

Increases in other expenses primarily resulted from the acquisition of CEGO.

Taxes increased 93% to \$15,560,000 because of higher earnings from molybdenum sales and the acquisition of CEGO.

Placer's share in after-tax earnings of associated companies decreased \$4,848,000 or 44% due to a non-recurring credit of \$3,040,000 in 1976 and poor market conditions for copper and zinc.



## Consolidated Balance Sheets

PLACER DEVELOPMENT LIMITED AND SUBSIDIARIES

	December 31,	
	1978	1977
	(in thousands)	
<b>ASSETS</b>		
<b>CURRENT ASSETS:</b>		
Cash and time deposits .....	\$ 43,273	\$ 27,594
Marketable securities, at lower of cost and market value .....	13,305	8,123
Accounts receivable .....	27,812	35,060
Receivables from associated companies .....	7,160	6,986
Inventories (Note 4) .....	<u>33,369</u>	<u>33,291</u>
	124,919	111,054
<b>INVESTMENTS:</b>		
Associated companies (Note 5) .....	67,495	62,214
Other assets, at cost .....	<u>5,481</u>	<u>4,707</u>
	72,976	66,921
<b>PROPERTY, PLANT AND EQUIPMENT (Note 6):</b>		
Buildings and equipment .....	82,157	80,840
Properties and development .....	<u>97,294</u>	<u>74,554</u>
	179,451	155,394
	<u><u>\$377,346</u></u>	<u><u>\$333,369</u></u>

\*Restated (Note 2)



December 31,  
1978                      1977\*  
(in thousands)

## LIABILITIES AND SHAREHOLDERS' EQUITY

### CURRENT LIABILITIES:

Accounts payable and accrued liabilities .....	\$ 32,802	\$ 26,792
Income and resource taxes payable .....	20,106	10,719
Long-term debt due within one year .....	<u>11,024</u>	<u>3,709</u>
	63,932	41,220
 LONG-TERM DEBT (Note 7) .....	 46,920	 35,755
 DEFERRED INCOME AND RESOURCE TAXES .....	 16,941	 15,782
 MINORITY INTERESTS IN SUBSIDIARIES .....	 17,652	 18,321

### SHAREHOLDERS' EQUITY:

Share capital (Note 9) —		
Authorized, 20,000,000 common shares		
without nominal or par value		
Issued, 12,112,491 shares (1977 — 12,098,620)		
less 7,683 held by a subsidiary (1977 — 12,278) .....	9,474	9,155
Contributed surplus .....	8,773	8,773
Earnings reinvested in the business .....	<u>213,654</u>	<u>204,363</u>
	231,901	222,291
	<u>\$377,346</u>	<u>\$333,369</u>
 Subsequent event (Note 16)		

APPROVED BY THE BOARD:

R. G. Duthie, Director

T. H. McClelland, Director



## Consolidated Statements of Earnings

PLACER DEVELOPMENT LIMITED AND SUBSIDIARIES

	Years ended December 31,	
	1978	1977*
	(in thousands)	
REVENUES:		
Sales .....	\$170,319	\$177,100
Interest and other income .....	8,814	7,691
	<u>179,133</u>	<u>184,791</u>
EXPENSES:		
Cost of sales .....	98,635	112,746
Depreciation .....	9,198	9,511
Depletion .....	5,269	4,737
Selling, general and administrative .....	12,435	11,315
Interest and exchange loss (Note 7) .....	7,911	5,777
Exploration .....	12,106	9,916
	<u>145,554</u>	<u>154,002</u>
Earnings before taxes and other items .....	33,579	30,789
INCOME AND RESOURCE TAXES (Note 8):		
Current .....	20,731	13,254
Deferred .....	1,499	2,306
	<u>22,230</u>	<u>15,560</u>
Earnings before the following .....	11,349	15,229
Equity in after-tax earnings of associated companies (Note 5) .....	14,191	6,240
Minority interests in losses of subsidiaries .....	669	40
Earnings before extraordinary items .....	26,209	21,509
Extraordinary items (Notes 3 and 5) .....	(6,025)	—
NET EARNINGS .....	<u>\$ 20,184</u>	<u>\$ 21,509</u>
PER COMMON SHARE:		
Earnings before extraordinary items .....	<u>\$2.17</u>	<u>\$1.78</u>
Net earnings .....	<u>\$1.67</u>	<u>\$1.78</u>

## Consolidated Statements of Earnings Reinvested in the Business

	Years ended December 31,	
	1978	1977*
	(in thousands)	
BALANCE, BEGINNING OF YEAR:		
As previously reported .....	\$203,607	\$192,515
Adjustment of foreign exchange losses on long-term debt (Note 2) .....	756	—
As restated .....	204,363	192,515
Net earnings .....	20,184	21,509
Dividends — \$0.90 per share (1977 — \$0.80) .....	(10,893)	(9,661)
BALANCE, END OF YEAR .....	<u>\$213,654</u>	<u>\$204,363</u>

\*Restated (Note 2)



# Consolidated Statements of Changes in Financial Position

PLACER DEVELOPMENT LIMITED AND SUBSIDIARIES

	Years ended December 31, 1978                      1977* (in thousands)	
FINANCIAL RESOURCES WERE PROVIDED BY:		
Earnings before extraordinary items .....	\$ 26,209	\$ 21,509
Add (deduct) items not involving working capital —		
Depreciation and depletion .....	14,467	14,248
Deferred income and resource taxes .....	1,499	2,306
Unrealized exchange loss on long-term debt .....	1,025	72
Unproductive oil and gas properties expensed .....	692	1,647
Equity in after-tax earnings of associated companies .....	(14,191)	(6,240)
Minority interests in losses of subsidiaries .....	(669)	(40)
Total from operations .....	29,032	33,502
Proceeds of long-term debt .....	22,541	39,392
Dividends from associated companies .....	6,672	8,853
Other .....	524	2,866
	<u>58,769</u>	<u>84,613</u>
FINANCIAL RESOURCES WERE USED FOR:		
Properties and development .....	25,645	14,680
Buildings and equipment .....	7,174	7,568
Reduction in long-term debt .....	12,401	3,709
Acquisition of companies .....	11,503	49,767
Dividends to —		
Shareholders of the Company .....	10,893	9,661
Minority interests in subsidiary .....	—	1,603
	<u>67,616</u>	<u>86,988</u>
Decrease in working capital .....	(8,847)	(2,375)
Working capital, beginning of year .....	69,834	72,209
Working capital, end of year .....	<u>\$ 60,987</u>	<u>\$ 69,834</u>
INCREASE (DECREASE) IN WORKING CAPITAL COMPONENTS:		
Cash and time deposits .....	\$ 15,679	\$ (6,662)
Marketable securities .....	5,182	(525)
Accounts receivable .....	(7,248)	13,431
Receivables from associated companies .....	174	3,071
Inventories .....	78	(1,924)
Accounts payable and accrued liabilities .....	(6,010)	(3,237)
Income and resource taxes payable .....	(9,387)	(2,820)
Long-term debt due within one year .....	(7,315)	(3,709)
Decrease in working capital .....	<u>\$ (8,847)</u>	<u>\$ (2,375)</u>

\*Restated (Note 2)



## PLACER DEVELOPMENT LIMITED AND SUBSIDIARIES

### 1. Accounting policies:

#### *Consolidation*

The consolidated financial statements include the accounts of the Company and all of its subsidiary companies (owned more than 50%). In addition, the equity method of accounting is followed for investments in associated companies in which the Company owns from 20% to 50%. Under this method, the Company records its share of the after-tax earnings or losses of these companies, rather than dividends received. Withholding tax is provided on the undistributed earnings of foreign subsidiary and associated companies.

The excess of cost over the underlying equity in the net assets of these investments at the date of acquisition is being depleted on a unit of production basis or amortized on a straight-line basis over the estimated life of each respective property or twenty years, whichever is shorter.

#### *Foreign currency translation*

Current assets (except inventories), current liabilities and long-term debt are translated from foreign currencies into Canadian dollars at year-end rates. All other assets and liabilities, depreciation and depletion, are translated at the rates applicable at the time of the relevant transactions. Revenues and expenses, other than depreciation and depletion, are translated at the average rates of exchange for the year.

Exchange gains and losses arising on translation are included in determining net earnings except for unrealized gains or losses on long-term debt, which are deferred and amortized over the remaining term of each obligation (see Note 2). The net amount of foreign exchange which arises from translation is included in net earnings in 1978 and 1977 and is not significant.

#### *Inventories*

Concentrates and finished and in-process industrial products are valued at the lower of cost and net realizable value; cost is determined on a first-in, first-out basis.

Supplies and raw materials are valued at the lower of cost and replacement cost; cost is determined principally on a moving-average basis.

#### *Property, plant and equipment*

Depreciation is provided on the cost of assets over their estimated useful lives on the following annual bases —

- buildings and machinery on a straight-line basis at the rate of 5%,
- mobile equipment on a diminishing-balance basis at rates of 15% to 36%, and
- oil and gas lease and well equipment, and gas plants on a unit of production basis.

Depletion of the cost of mining properties and development incurred during the preproduction period is provided on a straight-line basis over the estimated life of

each mine or twenty years, whichever is shorter.

The cost of overburden removal for specific large mining projects is capitalized as development and charged to earnings on the unit of production basis.

Depletion of the cost of producing oil and gas properties and development, representing lease acquisition and drilling costs, is provided on the unit of production basis using estimated economically recoverable reserves for each area.

#### *Exploration*

Current mineral exploration costs are charged against earnings for the year except that costs are capitalized as Properties and development if economically recoverable ore reserves have been determined.

Current oil and gas exploration costs, including geological, geophysical and exploratory dry hole costs, are charged against earnings for the year except for lease acquisition and drilling costs, which are initially capitalized as Properties and development. When an area is abandoned or when there is an impairment in value of an undeveloped property, the applicable capitalized costs are charged against earnings.

#### *Deferred income and resource taxes*

The Company records income and resource taxes by the tax allocation method. Differences arise when certain costs, principally depreciation and depletion, are reflected in different time periods for accounting purposes than for tax purposes. The tax effect of these timing differences is shown in the consolidated financial statements as Deferred Income and Resource Taxes.

### 2. Change in accounting policy:

In accordance with guidelines introduced by the Canadian Institute of Chartered Accountants in September, 1978, the Company has changed its accounting policy with respect to translation of foreign currency transactions and financial statements (see Note 1).

The principal effect of this change is in the accounting for unrealized exchange gains or losses arising from translating long-term debt payable in foreign currency. Previously, such gains or losses were entirely credited or charged to earnings during the year in which they arose. Now these are deferred and amortized over the remaining term of each obligation. Had this change not been made, consolidated net earnings for 1978 would have been lower by \$2,490,000 (\$0.21 per share) and for 1977 by \$756,000 (\$0.06 per share). There was no significant effect on fiscal years prior to 1977.

### 3. Acquisitions:

Effective February 16, 1978, the Company acquired for \$11,503,000 two coal mining companies located in Kentucky, U.S.A. Subsequent to the acquisition, the results of a



drilling program, the investigation of leases, and a study of the impact of guidelines for the regulation of strip mining issued by the United States Department of the Interior in July, 1978, substantially reduced the estimated economically recoverable coal reserves. As a result, an extraordinary charge of \$4,095,000 has been made against earnings in the current year.

The Company has capitalized \$5,240,000 of property costs and \$1,354,000 of development costs incurred in acquiring the right to a 70% interest in a silver property near Houston, British Columbia. An additional \$2,300,000 will be expended to complete the purchase of this interest. A feasibility study is scheduled for completion early in 1979, at which time a decision will be made as to when to place the property into production.

#### 4. Inventories:

	December 31, 1978      1977 (in thousands)	
Mining —		
Concentrates .....	\$ 10,030	\$ 11,451
Operating supplies .....	9,088	9,690
	<u>19,118</u>	<u>21,141</u>
Industrial products —		
Finished and in-process .....	11,461	9,903
Raw materials and supplies .....	2,790	2,247
	<u>14,251</u>	<u>12,150</u>
	<u>\$ 33,369</u>	<u>\$ 33,291</u>

#### 5. Associated companies:

The Company has significant investments in three companies which operate primarily in the mining industry — Craigmont Mines Limited and Mattagami Lake Mines Limited (N.P.L.) in Canada and Marcopper Mining Corporation in the Philippines. Craigmont estimates that proven ore reserves are only sufficient to enable production of copper concentrate to continue into early 1980. In addition, the Company's investment in Mattagami may be

exchanged for an investment in Noranda Mines Limited in 1979 (see Note 16).

In 1978 Northern Cattle Company Pty. Limited, a 50% owned company, offered to sell its main grazing properties in Australia. As a result, a reduction in the value of the properties has been indicated and the Company's share thereof, amounting to \$1,930,000, has been recorded as an extraordinary charge against earnings in the current year.

Details of the Company's investments are shown below —

		Quoted market price December 31, 1978	Underlying equity in net assets December 31, 1978      1977		Equity in after- tax earnings, years ended December 31, 1978      1977		Dividends received, years ended December 31, 1978      1977	
	% Owner- ship							
(in thousands)								
Craigmont .....	45	\$ 12,452	\$ 8,642	\$ 8,093	\$ 2,360	\$ 951	\$1,811	\$1,811
Marcopper* .....	40	\$110,248	23,642	21,387	6,391	2,218	4,136	3,809
Mattagami .....	27	\$ 55,678	34,053	29,219	5,552	3,039	718	3,233
Other .....	28-50	—	1,158*	3,515	(112)	32	7	—
			\$67,495	\$62,214	\$14,191	\$6,240	\$6,672	\$8,853

\*Net of withholding tax.

\*\*Reduced by the writedown of Northern Cattle Company Pty. Limited.

The quoted market price does not necessarily represent the value of these investments which may be more or less than that indicated by market quotations.

Summarized below are the combined assets, liabilities and net earnings of all the associated companies —

	December 31, 1978      1977 (in thousands)			December 31, 1978      1977 (in thousands)	
Assets —			Liabilities —		
Current assets .....	\$167,676	\$129,208	Current liabilities .....	\$ 45,420	\$ 49,938
Investments and other assets .....	9,391	11,952	Long-term debt and deferred income taxes .....	45,009	31,014
Property, plant and equipment — net .....	162,325	167,856	Minority interest in subsidiaries .....	17,772	19,673
	<u>\$339,392</u>	<u>\$309,016</u>		<u>\$108,201</u>	<u>\$100,625</u>
			Combined net earnings for the year ..	<u>\$ 38,807</u>	<u>\$ 20,588</u>



## 6. Property, plant and equipment:

	December 31, 1978      1977 (in thousands)	
Buildings and equipment		
Cost —		
Buildings and machinery .....	\$103,631	\$101,192
Mobile equipment .....	35,953	31,747
Oil and gas lease and well equipment, and gas plants ...	14,264	11,163
	<u>153,848</u>	<u>144,102</u>
Accumulated depreciation —		
Buildings and machinery .....	43,057	37,998
Mobile equipment .....	22,798	20,202
Oil and gas lease and well equipment, and gas plants ...	5,836	5,062
	<u>71,691</u>	<u>63,262</u>
	<u>\$ 82,157</u>	<u>\$ 80,840</u>
Properties and development		
Cost —		
Mining .....	\$ 34,233	\$ 21,082
Oil and gas .....	78,749	63,976
	<u>112,982</u>	<u>85,058</u>
Accumulated depletion —		
Mining .....	7,743	6,437
Oil and gas .....	7,945	4,067
	<u>15,688</u>	<u>10,504</u>
	<u>\$ 97,294</u>	<u>\$ 74,554</u>

## 7. Long-term debt:

Long-term debt consists of the following term loans —

	December 31, 1978      1977 (in thousands)	
U.S. \$28,500,000 (1977 — \$30,000,000), bearing interest at 1% above the London Interbank Offering Rate (average 9.5%, 1977 — 7.7%), maturing 1983 .....	\$ 33,801	\$ 32,832
U.S. \$9,750,000, bearing interest at 5/8% - 3/4% above the London Interbank Offering Rate (average 9.5%), maturing 1985 ....	11,563	—
U.S. \$4,410,000, bearing interest at 8%, maturing 1981 .....	5,231	—
Australian \$2,000,000 (1977 — \$4,000,000), bearing interest at 13%, maturing 1981 .....	2,728	4,988
Canadian, bearing interest at 1/2% above bank prime rate (average 10.1%, 1977 — 8.8%), maturing 1983 .....	7,860	2,400
Unrealized foreign exchange loss, to be amortized over the remaining term of each obligation (see Note 2) .....	(3,239)	(756)
	<u>57,944</u>	<u>39,464</u>
Less: Amounts due within one year ..	11,024	3,709
	<u>\$ 46,920</u>	<u>\$ 35,755</u>

Certain loans contain various restrictions including the maintenance of working capital, working capital ratio, and

net worth. These loans also contain provisions for limitations on guarantees, liens, leases, indebtedness, and consolidations and mergers.

At December 31, 1978 the scheduled repayment of the above loans for each of the five years through 1983 is as follows — 1979 — \$11,024,000, 1980 — \$12,387,000, 1981 — \$12,715,000, 1982 — \$9,389,000, 1983 — \$8,997,000.

In 1978 interest expense and exchange loss on long-term debt amounted to \$5,581,000 and \$1,534,000 respectively (1977 — \$1,312,000 and \$241,000).

The Company had available at December 31, 1978, unused lines of credit amounting to \$66,800,000 (1977 — \$62,700,000), which generally provide for unsecured term loans bearing interest at floating rates charged by banks to prime commercial creditors.

## 8. Income and resource taxes:

The reconciliation between the combined federal and provincial statutory income tax rate in Canada and the Company's effective income and resource tax rate is as follows —

	Years ended December 31, 1978      1977	
Combined Canadian federal and provincial income tax rate .....	51.0%	51.0%
Resource and depletion allowances ..	(16.9)	(24.3)
Adjusted combined income tax rate ..	34.1	26.7
Provincial resource taxes .....	17.5	14.8
	<u>51.6</u>	<u>41.5</u>
Foreign exploration not deductible ..	6.9	5.8
Depletion not deductible .....	4.5	5.4
Other .....	3.2	(2.2)
Effective income and resource tax rate	<u>66.2%</u>	<u>50.5%</u>

At December 31, 1978, earned depletion of approximately \$15,000,000 (1977 — \$14,200,000) is available to reduce taxable income of subsidiaries in future years.

## 9. Share capital:

### Share purchase plan

The Company has a share purchase plan for its employees under which the Company contributes one-third of the cost of shares issued to employees. During 1978, 11,171 shares were issued for \$239,000 and 4,595 shares were provided from a subsidiary at fair market value. (In 1977, 22,338 shares were issued for \$436,000.)

### Share option plan

The Company's share option plan provides options over a ten-year term which are exercisable at any time. The option prices are 110% of the market value of the common shares at the dates the options are granted.

In 1978, options for 1,000 common shares were granted and 2,700 options were exercised for \$49,000. (In 1977, no options were granted or exercised.) At December 31, 1978, options for 61,900 shares were outstanding at prices ranging from \$17.12 to \$24.34 per share. There would be no significant dilution of earnings per share if these outstanding options had been exercised during the year.

## 10. Pension plans:

The Company and its subsidiaries have contributory and non-contributory pension plans under which the total pension expense for 1978 was \$706,000 (1977 — \$703,000). The cost of pension benefits charged to earnings is based upon periodic actuarial computations which are obtained at least every two years. The current and past service benefits of these plans, for services rendered to the balance sheet date, are fully provided for in accordance with the most recent actuarial reports, and with the estimated requirements for minor modifications to the plans since the report dates.

## 11. Remuneration of directors and senior officers:

Aggregate direct remuneration paid by the Company and its subsidiaries to its directors and senior officers in 1978 amounted to \$789,000 (1977 — \$734,000) of which \$67,000 (1977 — \$65,000) consisted of fees paid to directors.

## 12. Price and profit controls:

The Company has complied with the provisions of the federal government's Anti-Inflation Act which provided restraints on prices, profits, compensation and dividends. Primarily as a result of the lower value of the Canadian dollar compared to the United States dollar, excess revenue as defined by the Act arose. The Company's compliance plan has been accepted by the Anti-Inflation Board and is expected to be completed in the ensuing year. Accordingly, no provision for the excess revenue has been made in 1978.

## 13. Lines of business information:

The Company operates in three principal industries — mining in Canada and the United States, oil and gas in Canada, and manufacturing in Australia. The principal

base metal mining operations include the production and sale of molybdenic trioxide and copper concentrates. Oil and gas operations include the production and sale of crude oil, natural gas and natural gas liquids. Manufacturing operations include the manufacture of mining and industrial equipment.

Years ended  
December 31,  
**1978**      1977  
(in thousands)

### INDUSTRY SEGMENTS —

#### SALES:

Mining .....	<b>\$112,752</b>	\$119,780
Oil and gas .....	<b>17,703</b>	14,376
Manufacturing .....	<b>27,640</b>	33,048
Other industries .....	<b>12,224</b>	9,896
Total sales .....	<b>\$170,319</b>	\$177,100

#### OPERATING EARNINGS:\*

Mining .....	<b>\$ 37,543</b>	\$ 33,560
Oil and gas .....	<b>8,885</b>	6,915
Manufacturing .....	<b>1,351</b>	2,361
Other industries .....	<b>935</b>	303
Total operating earnings .....	<b>48,714</b>	43,139
General corporate expenses .....	<b>(3,932)</b>	(4,348)
Interest and exchange loss .....	<b>(7,911)</b>	(5,777)
Exploration expense .....	<b>(12,106)</b>	(9,916)
Interest and other income .....	<b>8,814</b>	7,691
Earnings before taxes and other items .....	<b>\$ 33,579</b>	\$ 30,789

### GEOGRAPHIC AREA —

#### SALES:

Canadian operations .....	<b>\$122,062</b>	\$132,217
Foreign operations .....	<b>48,257</b>	44,883
	<b>\$170,319</b>	\$177,100

#### OPERATING EARNINGS:\*

Canadian operations .....	<b>\$ 46,372</b>	\$ 39,839
Foreign operations .....	<b>2,342</b>	3,300
	<b>\$ 48,714</b>	\$ 43,139

\*Represents sales less cost of sales, depreciation, depletion and allocated general and administrative expenses.

## 14. Quarterly financial data (unaudited):

	1st	2nd	3rd	4th	Year Total
	(in thousands, except per share amounts)				
1978					
Sales .....	<b>\$ 40,310</b>	<b>\$ 48,721</b>	<b>\$ 39,039</b>	<b>\$ 42,249</b>	<b>\$170,319</b>
Gross profit .....	<b>11,565</b>	<b>13,031</b>	<b>13,590</b>	<b>19,031</b>	<b>57,217</b>
Earnings before extraordinary items .....	<b>5,030*</b>	<b>6,119*</b>	<b>6,498</b>	<b>8,562</b>	<b>26,209</b>
Net earnings .....	<b>5,030*</b>	<b>6,119*</b>	<b>6,498</b>	<b>2,537</b>	<b>20,184</b>
Per common share:					
Earnings before extraordinary items .....	<b>0.42*</b>	<b>0.50*</b>	<b>0.54</b>	<b>0.71</b>	<b>2.17</b>
Net earnings .....	<b>0.42*</b>	<b>0.50*</b>	<b>0.54</b>	<b>0.21</b>	<b>1.67</b>
Dividends .....	<b>0.20</b>	<b>0.20</b>	<b>0.25</b>	<b>0.25</b>	<b>0.90</b>
1977					
Sales .....	<b>\$ 48,772</b>	<b>\$ 33,912</b>	<b>\$ 49,658</b>	<b>\$ 44,758</b>	<b>\$177,100</b>
Gross profit .....	<b>15,458</b>	<b>8,421</b>	<b>12,564</b>	<b>13,663</b>	<b>50,106</b>
Net earnings .....	<b>7,369</b>	<b>3,742</b>	<b>4,518</b>	<b>5,880*</b>	<b>21,509*</b>
Per common share:					
Net earnings .....	<b>0.61</b>	<b>0.31</b>	<b>0.37</b>	<b>0.49*</b>	<b>1.78*</b>
Dividends .....	<b>0.20</b>	<b>0.20</b>	<b>0.20</b>	<b>0.20</b>	<b>0.80</b>

\*Restated (Note 2)



## 15. The impact of inflation (unaudited):

The selling prices of the Company's base metal mining products are generally determined by reference to world commodity prices. In recent years, the profit margin of the Company's molybdenum operation has increased because higher molybdenum prices have more than offset the increased costs of production. On the other hand, profit margins of its copper operations have decreased significantly because of lower copper prices and rising costs of production.

The estimated current replacement cost of the Company's productive capacity (generally property, plant and equipment) is much greater than the corresponding actual historical costs as a result of the impact of inflation over the length of time the assets have been in use. Accordingly, depreciation determined on a replacement cost basis would also be significantly higher. The replacement cost of inventories and cost of sales, excluding depreciation, would only be moderately higher than the related historical amounts because of the Company's rapid inventory turnover.

The Company's annual report on Form 10-K filed with the United States Securities and Exchange Commission contains certain specific information with respect to replacement cost of inventories and productive capacity and the approximate effect such replacement costs would have had on the computations of cost of sales and depreciation expense for the year.

## 16. Subsequent event:

Noranda Mines Limited has made a proposal to exchange one of its common shares for each two and one-quarter common shares of Mattagami Lake Mines Limited (N.P.L.). Under this proposal, the Company would receive 1,596,500 common shares in Noranda (5.4% share interest) in exchange for the presently owned shares of Mattagami.

Using the \$35 per share market value of Noranda on the date the proposal was announced, a gain of approximately

\$22,000,000 would occur in 1979 if the transaction is completed.

## 17. Subsidiaries:

Subsidiaries of the Company at December 31, 1978 are as follows —

### *Active*

Canadian Export Gas & Oil Inc.  
Canadian Export Gas & Oil (U.K.) Ltd.  
Cuisson Lake Mines Ltd.  
Fox Manufacturing Company (New Zealand) Limited  
Fraser Lake Development Ltd.  
Gibraltar Mines Limited  
Placer Amex Inc.  
Placer Austex Pty. Limited  
Placer CEGO Petroleum Limited  
Placer Coal Inc.\*  
Placer Exploration Limited  
Placer Holdings Pty. Limited  
Placer (P.N.G.) Pty. Limited  
Sociedad Placer Development y Compania Limitada

### *Inactive*

Amex Communications Inc.  
Beluga Coal Company  
Canadian Exploration Limited  
Canadian Export Gas & Oil Ltd.  
Canadian Export Gas & Oil (Spain) Inc.  
Canex Aerial Exploration Limited  
Canex Placer Limited (in voluntary liquidation)  
Equity Silver Mines Limited\*  
Fox Manufacturing Company (South Africa) Pty. Limited  
Minera Placer Argentina S.A.M.I.C.T.y F.  
Minera Placer S.A.  
Placer Development (U.K.) Limited  
Placer Internationaal, B.V.  
Placer Nominees Pty. Limited

*\*Incorporated in 1978*

## Auditors' Report

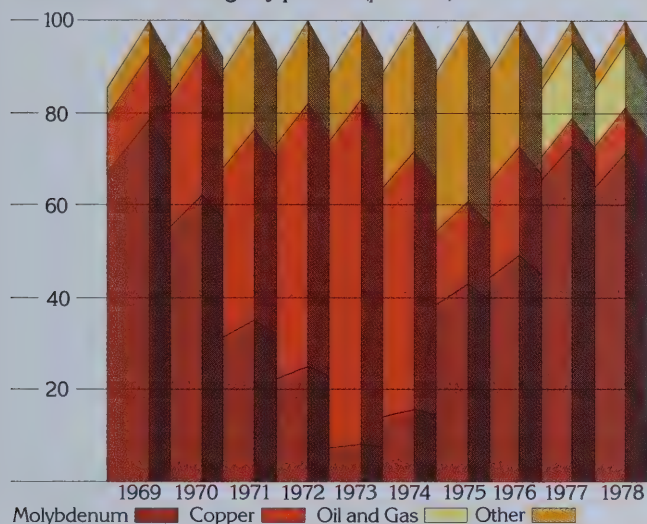
To the Shareholders of Placer Development Limited:

We have examined the consolidated balance sheets of Placer Development Limited as at December 31, 1978 and 1977 and the consolidated statements of earnings and earnings reinvested in the business and changes in financial position for the years then ended. Our examinations of the consolidated financial statements of Placer Development Limited and those subsidiaries and associated companies of which we are the auditors were made in accordance with generally accepted auditing standards, and accordingly included such tests and other auditing procedures as we considered necessary in the circumstances. We have relied on the reports of the auditors who have examined the financial statements of other subsidiary and associated companies.

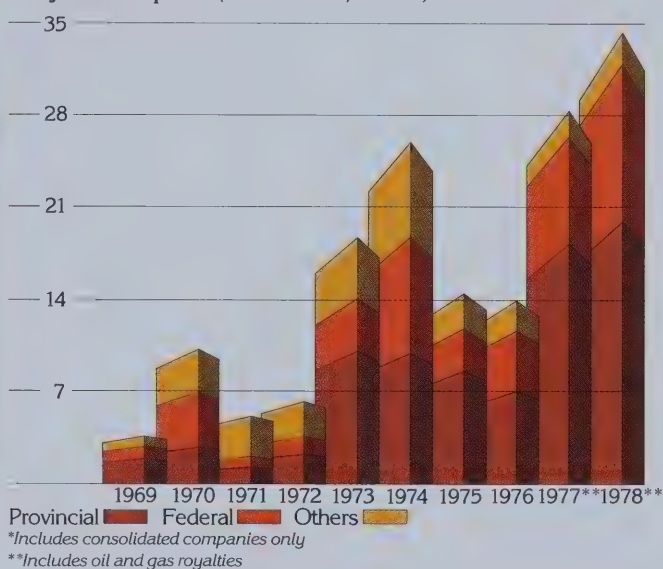
In our opinion these consolidated financial statements present fairly the financial position of the Company as at December 31, 1978 and 1977 and the results of its operations and the changes in its financial position for the years then ended in accordance with generally accepted accounting principles applied, after giving retroactive effect to the change in accounting for foreign currency transactions and financial statements referred to in Note 2 to the consolidated financial statements, on a basis consistent with that of the preceding year.

PRICE WATERHOUSE & CO.  
Chartered Accountants  
Vancouver, B.C.  
February 15, 1979

Contribution to earnings by product (per cent)



Ten year tax expense (in millions of dollars)\*



## COMPOSITION OF NET EARNINGS PER SHARE

Operation	Endako	Gibraltar	Craigmont	Mattagami	Marcopper	Placer CEGO	Placer Coal	Placer Exploration	Other*	Total
1978 — \$	1.62	(0.14)	0.20	0.46	0.53	0.27	(0.09)	(0.05)	(1.13)	1.67
1977 — \$	1.54	(0.01)	0.08	0.25	0.18	0.25	—	0.02	(0.53)	1.78

\*Primarily represents exploration, other minor operations, interest, other corporate expenses and in 1978 extraordinary losses of \$0.50.

## SHARE PRICE RANGE (Toronto Stock Exchange)

	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Year	
	High	Low	High	Low	High	Low	High	Low	High	Low
1978 — \$	23 $\frac{1}{8}$	19 $\frac{1}{4}$	24 $\frac{3}{4}$	20 $\frac{3}{8}$	26 $\frac{1}{4}$	21	29	24 $\frac{3}{4}$	29	19 $\frac{1}{4}$
1977 — \$	23 $\frac{3}{4}$	18	22 $\frac{3}{8}$	17 $\frac{5}{8}$	19 $\frac{1}{4}$	17 $\frac{1}{8}$	23 $\frac{1}{2}$	17	23 $\frac{3}{4}$	17

## RETURN ON SHAREHOLDERS' EQUITY

1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
12.8	12.2	7.1	15.6	50.9	23.4	8.1	8.7	10.0	8.9



## Ten Year Summary

(in thousands, except number of shareholders and employees)

Financial Data	1978	1977*	1976
Revenues:			
Sales .....	\$170,319	177,100	114,875
Interest and other income .....	8,814	7,691	6,073
	<u>179,133</u>	<u>184,791</u>	<u>120,948</u>
Expenses:			
Cost of sales .....	98,635	112,746	81,053
Depreciation and depletion .....	14,467	14,248	9,377
Selling, general and administrative .....	12,435	11,315	8,876
Exploration .....	12,106	9,916	6,436
Interest .....	7,911	5,777	—
	<u>145,554</u>	<u>154,002</u>	<u>105,742</u>
Earnings before taxes and other items .....	33,579	30,789	15,206
Income and resource taxes .....	22,230	15,560	8,069
Earnings (loss) before the following .....	11,349	15,229	7,137
Equity in after-tax earnings of associated companies .....	14,191	6,240	11,088
Minority interests in (earnings) losses of subsidiaries .....	669	40	(265)
Earnings before extraordinary items .....	26,209	21,509	17,960
Extraordinary items .....	(6,025)	—	—
Net earnings .....	<u>\$ 20,184</u>	<u>21,509</u>	<u>17,960</u>
Return on shareholders' equity — % .....	8.9	10.0	8.7
Operating Data			
Tonnes ore milled — Gibraltar .....	5,136	12,765	7,672
— Endako .....	10,657	9,085	8,520
	<u>15,793</u>	<u>21,850</u>	<u>16,192</u>
Copper produced (kg contained)			
Gibraltar .....	16,327	39,364	28,895
Placer's share of:			
Marcopper — 40% .....	21,610	18,895	19,014
Mattagami — 27% .....	2,560	3,218	3,887
Craigmont — 45% .....	10,694	9,698	9,823
	<u>51,191</u>	<u>71,175</u>	<u>61,619</u>
Molybdenum produced (kg contained) .....	6,363	6,905	6,838
Oil and natural gas liquids produced — bbls .....	1,021	796	—
Natural gas produced — m <sup>3</sup> .....	242,200	295,800	—
Other Data			
Working capital .....	\$ 60,987	69,834	72,209
Working capital ratio .....	2.0:1	2.7:1	3.3:1
Total assets .....	\$377,346	333,369	271,293
Property, plant and equipment additions .....	\$ 32,819	22,248	5,200
Average shares outstanding** .....	12,100	12,075	12,050
Number of shareholders .....	5,088	5,196	5,337
Geographical distribution of ownership — %			
— Canada .....	78.6	78.2	77.3
— Australasia .....	12.0	12.1	10.8
— U.S. & Other .....	9.4	9.7	11.9
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Number of employees .....	2,389	2,640	2,652
Per Common Share**			
Earnings before extraordinary items .....	\$ 2.17	1.78	1.49
Net earnings .....	\$ 1.67	1.78	1.49
Dividends paid .....	\$ 0.90	0.80	0.80
Price range on Toronto Stock Exchange — High .....	\$ 29	23¾	25½
— Low .....	\$ 19¼	17	14¾

\*Restated \*\*Adjusted to reflect two-for-one stock split in May, 1973.

1975	1974	1973	1972	1971	1970	1969
110,386	96,900	130,968	56,062	23,112	33,362	40,427
5,801	8,661	5,961	2,829	2,474	3,084	1,810
116,187	105,561	136,929	58,891	25,586	36,446	42,237
78,460	52,809	49,015	28,825	11,470	14,161	17,906
9,307	8,272	9,994	8,625	4,423	3,975	3,582
9,419	4,833	5,492	4,252	2,346	2,918	2,677
10,077	10,780	5,956	6,233	4,377	5,539	6,290
—	—	3,400	3,235	104	199	261
107,263	76,694	73,857	51,170	22,720	26,792	30,716
8,924	28,867	63,072	7,721	2,866	9,654	11,521
10,052	13,933	10,110	1,608	2,850	7,088	5,332
(1,128)	14,934	52,962	6,113	16	2,566	6,189
10,785	29,634	21,415	9,057	7,079	9,196	5,565
111	(4,959)	(15,307)	(2,623)	—	—	—
9,768	39,609	59,070	12,547	7,095	11,762	11,754
6,517	3,534	12,742	4,102	—	—	—
16,285	43,143	71,812	16,649	7,095	11,762	11,754
8.1	23.4	50.9	15.6	7.1	12.2	12.8
10,388	12,154	13,682	9,854	—	—	—
8,544	6,811	7,662	5,790	8,211	9,179	8,734
18,932	18,965	21,344	15,644	8,211	9,179	8,734
37,902	40,935	55,248	36,298	—	—	—
13,901	18,743	16,632	17,740	17,513	13,713	2,835
3,602	3,729	3,692	1,976	1,580	1,545	1,586
11,029	10,191	7,575	9,915	8,090	6,901	6,984
66,434	73,598	83,147	65,929	27,183	22,159	11,405
6,849	5,466	5,388	4,190	6,526	8,274	8,530
—	—	—	—	—	—	—
—	—	—	—	—	—	—
59,564	59,224	49,098	27,043	17,209	17,318	24,078
3.5:1	5.9:1	4.4:1	2.4:1	2.2:1	4.6:1	4.3:1
253,420	241,341	208,109	186,784	166,310	110,247	105,166
8,903	13,694	7,367	19,009	51,806	14,106	3,996
12,025	12,019	12,015	11,963	11,960	11,960	11,873
5,574	5,778	5,720	5,170	5,800	6,500	4,910
75.8	74.3	73.3	70.0	66.0	61.8	61.2
11.8	11.3	12.6	13.3	13.6	15.7	16.4
12.4	14.4	14.1	16.7	20.4	22.5	22.4
100.0	100.0	100.0	100.0	100.0	100.0	100.0
2,794	2,813	2,326	2,434	2,138	2,149	2,129
0.81	3.30	4.92	1.05	0.59	0.98	0.99
1.35	3.59	5.98	1.39	0.59	0.98	0.99
1.20	1.20	1.20	0.47	0.46	0.68	0.59
22¼	25⅛	32	23	19¾	24¾	23⅝
13¾	13¼	20⅝	12¾	8¾	14½	16



# Placer Development Limited

## Placer Group Interests

### CANADA

Craigmont Mines Limited  
Endako Mines Division  
Equity Silver Mines Limited  
Gibraltar Mines Limited  
Mattagami Lake Mines Limited (N.P.L.)  
    Mattabi Mines Ltd.  
    Canadian Electrolytic Zinc Limited  
Placer CEGO Petroleum Limited

### U.S.A.

Placer Amex Inc.  
    McDermitt Mine  
    Placer Coal Inc.

### AUSTRALIA

Placer Exploration Limited  
    Fox Manufacturing Company  
    Molybond Laboratories  
    Associated Plywood Sales  
    Northern Cattle Company Pty. Limited

### PHILIPPINES

Marcopper Mining Corporation

## Auditors

Price Waterhouse & Co., Chartered Accountants  
Vancouver, Canada

## Stock Exchange Listings

Toronto Stock Exchange  
Vancouver Stock Exchange  
Montreal Stock Exchange  
Sydney Stock Exchange  
American Stock Exchange

## Transfer Agents and Registrars

National Trust Company, Limited  
    Vancouver and Calgary, Canada  
Canada Permanent Trust Company,  
    Toronto and Montreal, Canada  
Professional Share Registries  
    (N.S.W.) Pty. Limited, Sydney, Australia  
Registrar and Transfer Company  
    Jersey City, N.J., U.S.A.

## Offices

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**Placer Development Limited**